

# PLANNING COMMISSION REPORT



MEETING DATE: January 14, 2004

ITEM No. \_\_\_\_\_ GOAL: Coordinate Planning to Balance Infrastructure

## SUBJECT

### **Water Treatment Plant - 27-UP-2003**

## REQUEST

Request to approve a municipal use master site plan by expanding the existing water treatment plant with an additional 6.9+/- acres located at 8660 E Union Hills Drive for construction of a water treatment facility with Industrial Park District, Planned Community Development (I-1, PCD) zoning.

### **Key Items for Consideration:**

- An additional 6.9 acres will be added to the existing 25-acre Central Arizona Project water treatment plant.
- The Municipal Use Master Site Plan will allow development of a new granular activated carbon (GAC) water treatment facility, as required under the Federal Safe Drinking Water Act, to filter the cities drinking water.
- The applicant held one open house meeting and contacted all property owners within 1,800 feet of the site.

### **Related Policies, References:**

122-ZN-1984, 50-DR-1985, 50-DR-1985#2, 50-DR-1985#3, 40-SA-2000, 10-UP-1991, 46-ZN-1990, 46-ZN-1990#2  
(See Attachment #10 – Case History)

## OWNER

City of Scottsdale - Water Resources  
480-312-5827

## APPLICANT CONTACT

Charles Henne  
City of Scottsdale / Capital Projects  
Management  
480-312-7097

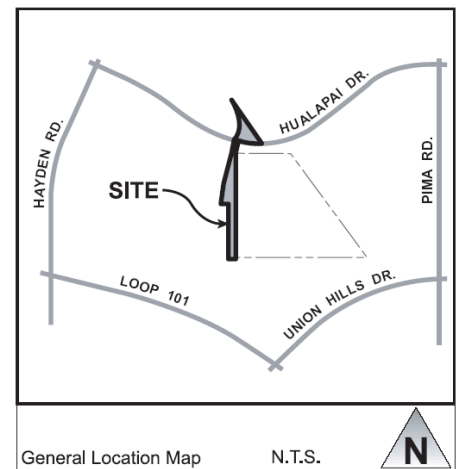
## LOCATION

8660 E Union Hills Dr

## BACKGROUND

### **History.**

In December of 1984, the land for the CAP water treatment plant was rezoned from R1-35 to I-1. The rezoning allowed the land to be developed as a municipal use, there was no requirement for a conditional use permit at that time. Currently, the applicant has purchased approximately 6.9 acres of land to the west of the existing plant from the State of Arizona. This land is part of areas known as Core North and Crossroads East. During the late 1980's and early 1990's a variety of zoning cases were reviewed and approved in these areas. The proposed expansion is part of "Parcel N" of the Core North Master



Plan and another portion of the Crossroads East Master Plan.

**Zoning.**

The site is zoned Industrial Park District Planned Community Development (I-1, PCD). This zoning district allows for municipal uses. If the municipal use is greater than one acre, it requires a conditional use permit.

**General Plan.**

The General Plan Land Use Element designates the property as Cultural/ Institutional or Public Use. This category includes government buildings and private or public utilities.

**Context.**

The CAP water treatment plant is located at 8660 E. Union Hills Drive, just west of Pima Road. The Scottsdale Water Campus is located on the east side of the site and the Solid Waste Transfer Station is located south of the site, both zoned are Open Space Planned Community Development (O-S, PCD). Vacant land known as Core North borders the west and north property lines of the site. The west property is zoned Open Space Planned Community Development (O-S, PCD) and the land to the north Industrial Park District Planned Community Development (I-1, PCD). The 101 Pima Freeway is south of the campus with the Grayhawk Master Planned community to the north approximately ¼ of a mile.

APPLICANT'S  
PROPOSAL

**Goal/Purpose of Request.**

The existing CAP water treatment plant consists of 25 acres. The applicant is requesting approval of a municipal use master plan by expanding the existing CAP water treatment plant. The new granular activated carbon (GAC) facility will be built on 3.4 acres of the total 6.9 acres. The remaining 3.5 acres will house future water treatment expansions. The facility will contain a water filter system for the treatment of drinking water. It is anticipated that the system will remove odors, bad tastes, color disorders, and improve water quality by eliminating chlorination by-products.

**Development information.**

- *Existing Use:* CAP water treatment plant
- *Buildings/Description:* existing buildings and reservoirs
- *Parcel Size of whole plant:* 25 acres
- *Parcel Size of expansion* building to be constructed on 3.4 acres of the total 6.9 acre expansion
- *Building Height Allowed:* 60 ft. with a municipal use
- *Existing Building Height:* ranges from 33 ft. to 56 ft.
- *Proposed Building Height* 44 ft.
- *Floor Area:* 27,000 sq. ft. including the tanks and 10,000 sq. ft. without the tanks

## IMPACT ANALYSIS

**Traffic.**

Traffic generated by the proposed granular activated carbon (GAC) facility will use Union Hills Drive and will be low, estimated to be approximately 4 carbon/chemical truck deliveries per day for 6 months of the year. Union Hills Drive, located west of Pima, is the only and main access to the existing plant and proposed expansion. The road dead-ends at the CAP water treatment plant.

**Water/Sewer.**

The project expansion will not have an effect on the existing water and sewer infrastructure.

**Use Permit Criteria.**

Conditional use permits, which may be revocable, conditional, or valid for a specified time period, may be granted only when expressly permitted after the Planning Commission has made a recommendation and the City Council has found as follows:

- A. That the granting of such conditional use permit will not be materially detrimental to the public health, safety or welfare. In reaching this conclusion, the Planning Commission and the City Council's consideration shall include, but not be limited to, the following factors:
  1. Damage or nuisance arising from noise, smoke, odor, dust, vibration or illumination.
    - ***The proposed granular activated carbon (GAC) facility is fully enclosed, self-contained, and will not create damage, nuisances, or negative impacts due to noise, smoke, odor, dust, vibration or illumination on properties adjacent to the site.***
  2. Impact on surrounding areas resulting from an unusual volume or character of traffic.
    - ***Traffic generated by the GAC facility will be low, estimated to be approximately 4 carbon/chemical truck deliveries per day for 6 months a year which will use Union Hills Drive west of Pima. This is the main and only access street to the plant.***
  3. There are no other factors associated with this project that will be materially detrimental to the public.
    - ***There are no other factors associated with this project that will be materially detrimental to the public. The closest residents are located approximately 1,500 feet to the northeast of the site.***
- B. The characteristics of the proposed conditional use are reasonably compatible with the types of uses permitted in the surrounding areas.

***The proposed GAC facility will not be intrusive or create land use conflicts with surrounding uses in the area. There are other municipal uses found east of the existing water plant including the solid waste transfer center and the Scottsdale Water Campus.***
- C. The additional conditions specified in Section 1.403, as applicable, have been satisfied.

***There are no additional conditions applicable to the proposed project.***

**Policy Implications.**

The proposed Municipal Use to allow for a new expansion to the existing water treatment plant does the following:

- Provides better quality water to the citizens of Scottsdale.
- Keeps facility traffic on Union Hills Drive west of Pima Rd.

**Community Involvement.**

The applicant held one open house meeting on October 15, 2003 in which one person from the public attended. The nearby citizen asked general informational questions about the proposed facility. There are no residential lots, homes, or homeowner associations within 750 ft. of the proposed water treatment plant expansion. The closest residential project, Cachet at Grayhawk Condominiums, is located approximately 1,500 feet to the northeast of the site. Knowing that there were no residents within 750 feet of the site, the applicant notified 149 residents through a flyer, within approximately 1,800 feet of the site. The proposed project did not generate any public feedback.

**Community Impact.**

The Ordinance requires that a proposed Municipal Use, including the expansion to an existing use, must be in the general public interest, and not be potentially detrimental to the adjacent property. The proposed expansion consists of a granular activated carbon (GAC) facility that filters drinking water for residents. The facility will be housed in a building designed to match the existing buildings already located within the plant. Traffic generated by the use will be low, and noise, odor, dust and vibration will be contained within the building.

STAFF  
RECOMMENDATION

**Recommended Approach:**

Staff recommends approval, subject to the attached stipulations.

RESPONSIBLE  
DEPT(S)


**Planning and Development Services Department**  
Current Planning Services

STAFF CONTACT(S)

Bill Verschuren  
Senior Planner  
480-312-7734  
E-mail: bverschuren@ScottsdaleAZ.gov

**APPROVED BY**

  
Bill Verschuren  
Report Author

  
Randy Grant  
Chief Planning Officer

**ATTACHMENTS**

1. Applicant's Narrative
2. Context Aerial
- 2A. Aerial Close-Up
3. Land Use Map
4. Zoning Map
5. Stipulations
6. Additional Information
7. Citizen Involvement
8. City Notification Map
9. Land Area Map
10. Case History
11. Site Plan



- ☐ Rezoning ☐ Other
- ☒ Use Permit
- ☐ Development Review
- ☐ Master Sign Programs
- ☐ Text Amendment

Case #                      / 432 -PA- 2003

Project Name Regulatory Compliance Improvements Project

Location CAP Water Treatment Plant

Applicant City of Scottsdale

Ordinance Section                     

## SITE DETAILS

Proposed Zoning: OS-PED, PCDExisting Zoning: OS-PED, PCDParcel Size: 6.9 acres, totalHeight: Approx. 50 feet max. planned building heightParking Required: 0 spacesParking Provided: 0 spaces# Of Buildings: 2 (not incl. 2 on exist. WTP Parcel)Setbacks: N- 25 feet S- 25 feetE- N/A W 0 feet

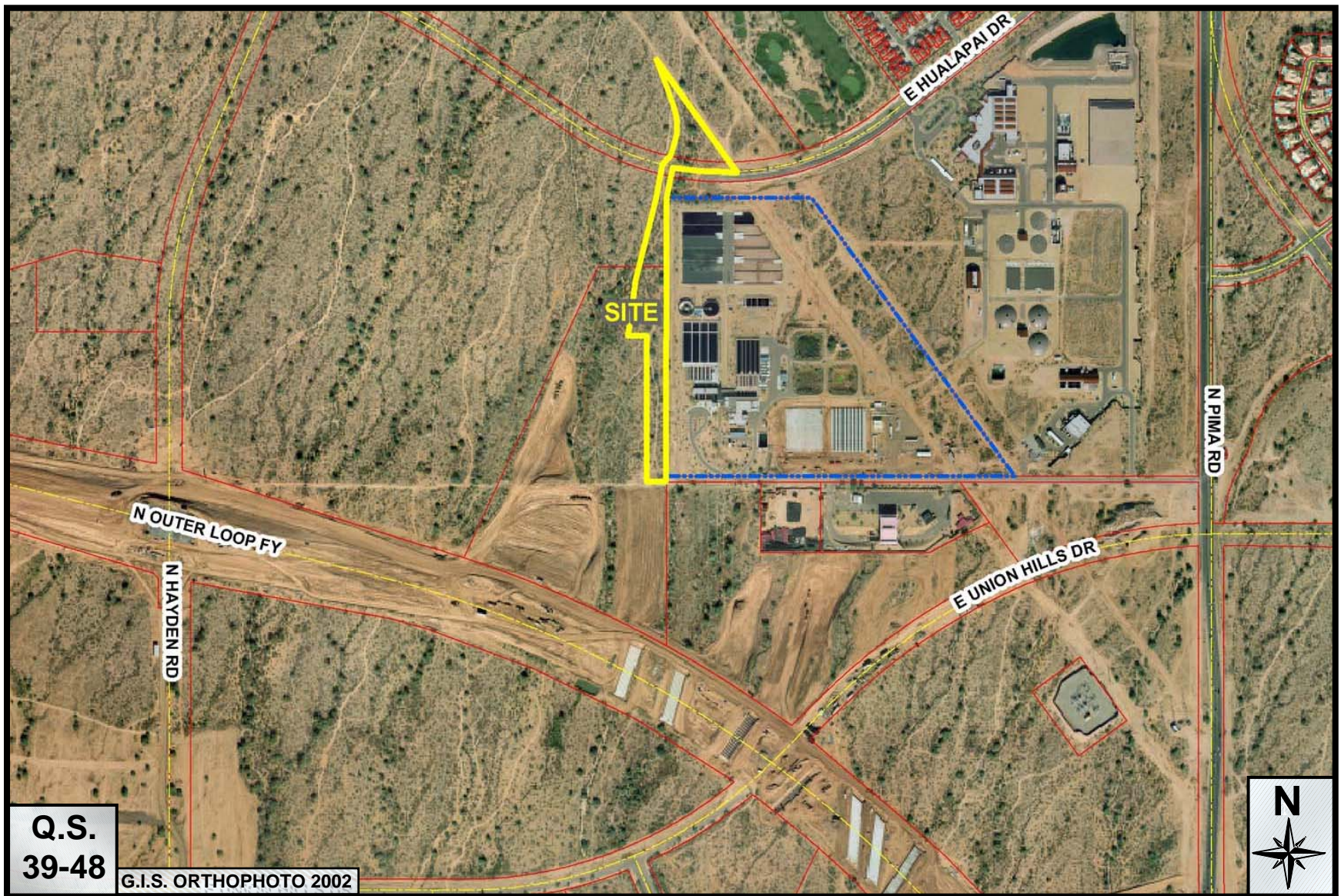
In the following space, please describe the project or the request

The purpose of this project is to design a granular activated carbon (GAC) facility for treatment of drinking water at Scottsdale's Central Arizona Project (CAP) Water Treatment Plant (WTP). The additional treatment is required for the City to comply with the anticipated Stage 2 Disinfectant/Disinfection By-Product Rule promulgated by the U.S. EPA. The GAC facility is to be added to the CAP WTP process train downstream of the existing granular media filters and is intended lower dissolved organic carbon (DOC) concentrations in the filtered water and reduce undesirable reactions of DOC with the chlorine disinfectant.

The planned site layout includes a new building dedicated to the GAC process and adjacent pumps, piping, valves, and concrete vaults. The GAC building will house the carbon contactors; ancillary piping, valves, and pumps; and electrical and control equipment. An influent pumping station to deliver filtered water to the GAC facility will be located adjacent to the GAC building. The design of all structures for the project will employ architectural concepts compatible with the existing CAP WTP site and its surroundings. The City of Scottsdale is in the process of acquiring additional undeveloped land west of the WTP site that is currently owned by the State of Arizona. A portion of the GAC facility will be constructed on this additional land. The existing CAP WTP site enclosure will also be modified to encompass the newly acquired land and maintain a secure site. Stormwater drainage from the GAC facility area will continue to flow south generally following existing drainage patterns at the CAP WTP.

The CAP WTP will experience additional periodic traffic from carbon delivery tankers along the plant's southern and western perimeters, as shown on the Conceptual Site Plan. The existing WTP access road will not be modified as shown on the Conceptual Site Plan until an additional finished water reservoir is constructed over the existing plant access road. The need for the additional reservoir may not be determined until design of the CAP WTP expansion to 75 million gallons per day is undertaken in future years. The plant expansion is not part of this GAC facility project.



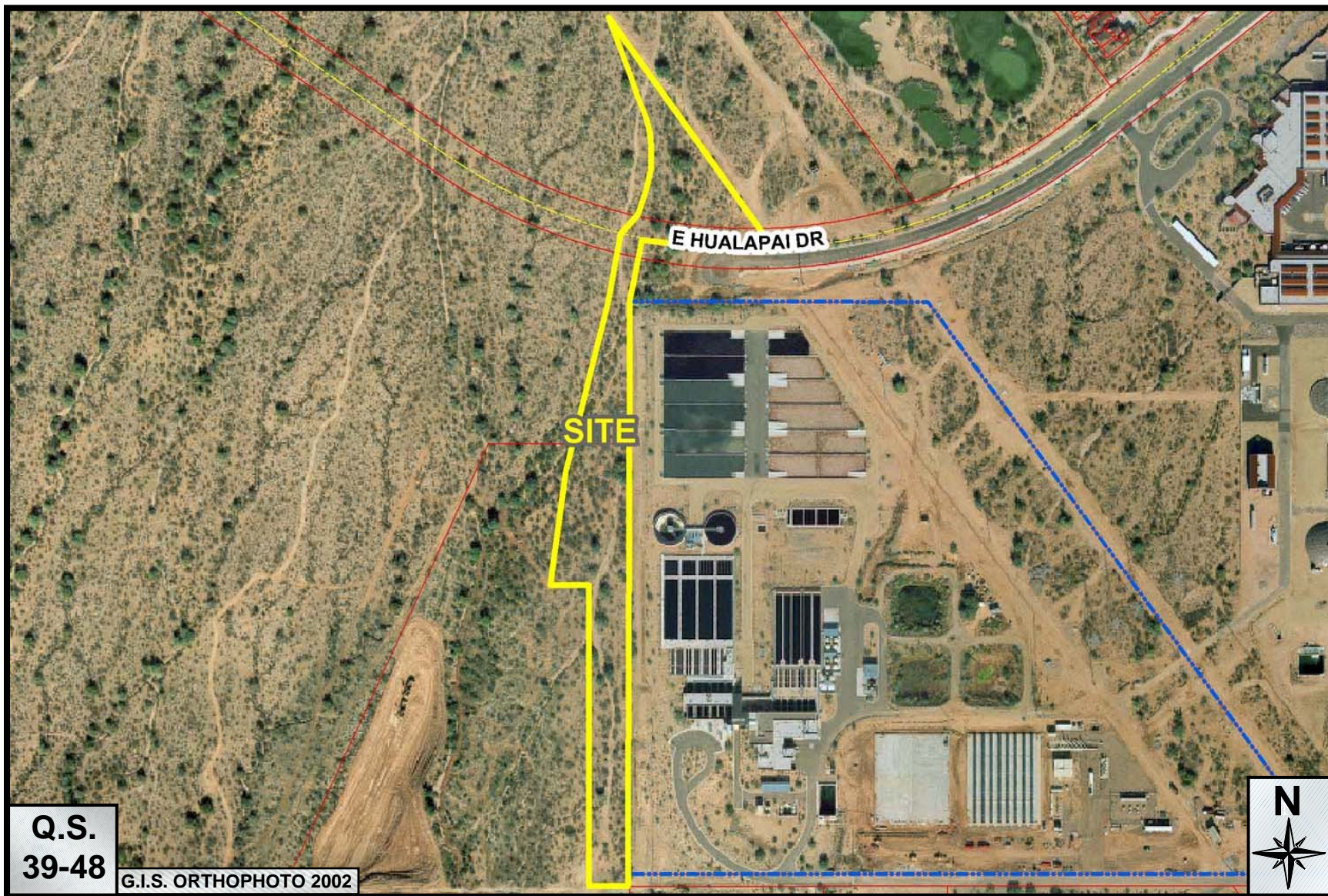


# Water Treatment Plant Improvements

**27-UP-2003**

ATTACHMENT #2





Q.S.  
39-48

G.I.S. ORTHOPHOTO 2002

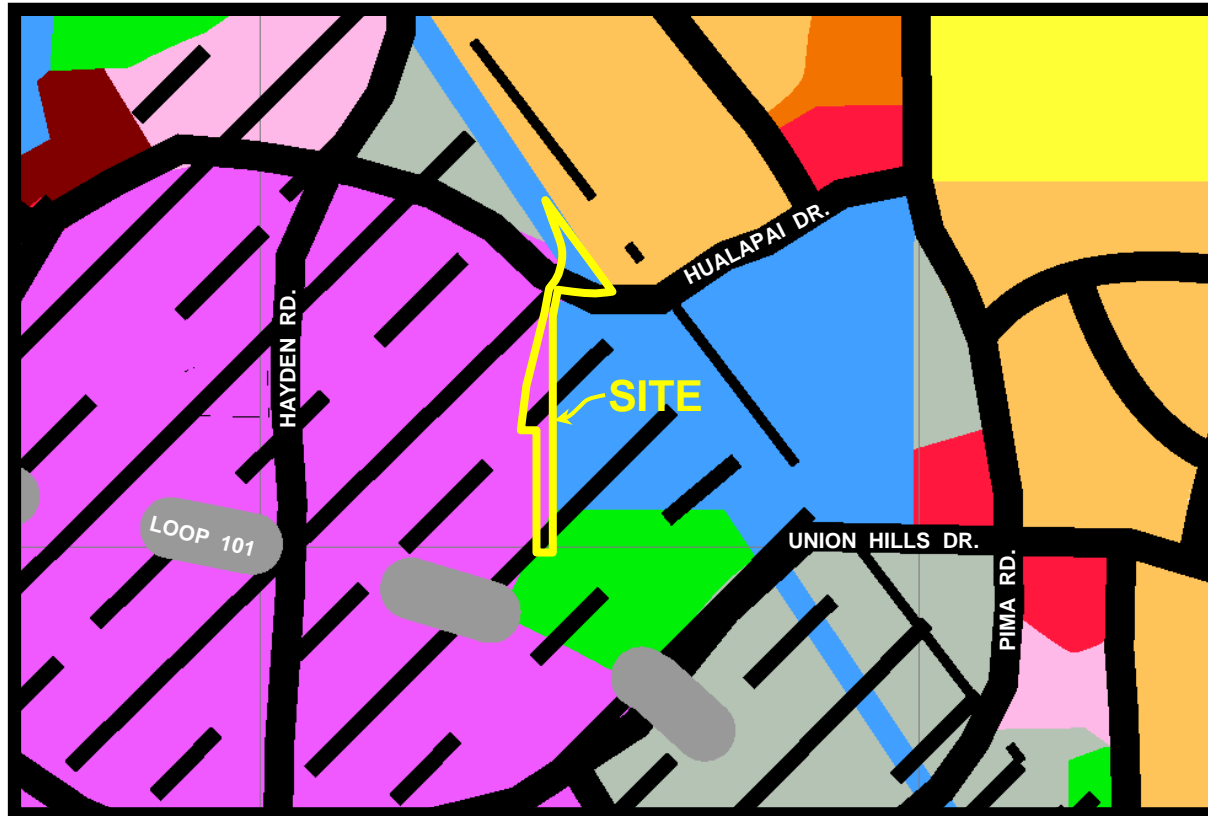
# Water Treatment Plant Improvements

**27-UP-2003**

ATTACHMENT #2A



# General Plan

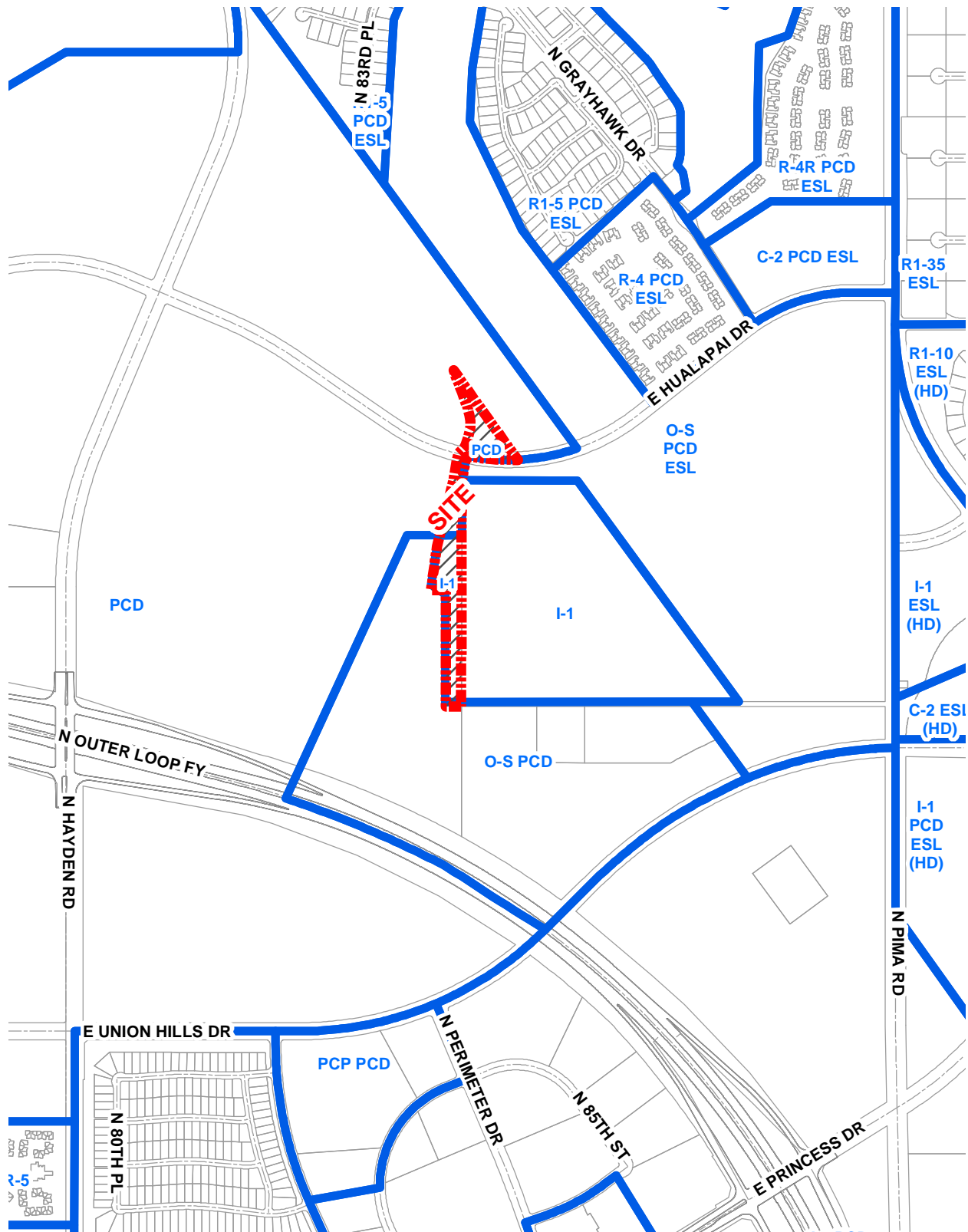


- |   |  |
|---|--|
| Rural Neighborhoods   | Commercial   |
| Suburban Neighborhoods                                      | Office   |
| Urban Neighborhoods   | Employment   |
| Mixed-Use Neighborhoods                                     | Natural Open Space   |
| Resorts/Tourism   | Developed Open Space (Parks)   |
| Shea Corridor   | Developed Open Space (Golf Courses)                                    |
| Mayo Support District                                       | Cultural/Institutional or Public Use                                   |
| Regional Use District                                       | State Trust Lands under State Land Commissioner's Order #078-2001/2002 |
| McDowell Sonoran Preserve (as of 4/2002)                    |  |
| Recommended Study Boundary of the McDowell Sonoran Preserve |  |
| City Boundary   | Location not yet determined  |



**27-UP-2003**  
ATTACHMENT #3

Adopted by City Council October 30, 2001  
Ratified by Scottsdale voters March 12, 2002  
revised to show McDowell Sonoran Preserve as of April 2, 2002



# 27-UP-2003

ATTACHMENT #4



## STIPULATIONS FOR CASE 27-UP-2003

### PLANNING/ DEVELOPMENT

1. CONFORMANCE TO DEVELOPMENT SUBMITTAL. Development shall conform with the 8½ x 11 site plan submitted by Malcolm Pirnie and dated December 2003. These stipulations take precedence over the above-referenced site plan. Any proposed significant change, as determined by the Zoning Administrator, shall be subject to subsequent public hearings before the Planning Commission and City Council.
2. Security lights within the water campus shall be mounted below the height of the perimeter screen wall.
3. Parking lot lights shall be limited to a height of fourteen (14) feet measured from finished grade to the bottom of the fixture.

### DRAINAGE AND FLOOD CONTROL

1. FINAL DRAINAGE REPORT. With the improvement plan submittal to the Project Quality/Compliance Division, the developer shall submit a final drainage report and plan subject to city staff approval. The final drainage report and plan shall conform to the Design Standards and Policies Manual – Drainage Report and Preparation. In addition, the final drainage report and plan shall:
  - (1). Any design that modifies the approved master drainage report requires from the developer a site-specific addendum to the final drainage report and plan, subject to review and approval by the city staff.
  - (2). Addendum generated by the final drainage analysis for this site shall be added to the appendix of the final drainage report.
- b. Provide final calculations and detailed analysis that demonstrate consistency with the accepted conceptual drainage plan and report.
2. STORM WATER STORAGE REQUIREMENT. Before improvement plan approval, the developer shall submit a final drainage report and plan which calculates the storm water storage volume required,  $V_r$ , and the volume provided,  $V_p$ , using the 100-year, 2-hour storm event.
3. STORM WATER STORAGE REQUIREMENT. On-site storm water storage is required for the full 100-year, 2-hour storm event, unless city staff approves the developer's Request for Waiver. See Section 2 of the Design Standards and Policies Manual for waiver criteria.
  - a. If applicable, the developer shall submit to the Community Development Division a Request for Waiver Review form, which shall:
    - (1). Include a supportive argument that demonstrates historical flow through the site will be maintained, and that storm water runoff exiting this site has a safe place to flow.
    - (2). Include an estimate for payment in-lieu of on-site storm water storage, subject to city staff approval.
  - b. The developer shall obtain an approved Stormwater Storage Waiver. The approved waiver shall be obtained before the Development Review Board (DRB) case can be scheduled for a DRB hearing, and before the developer submits the improvement plans to the Development Quality/Compliance Division.



## **ADDITIONAL INFORMATION FOR CASE 27-UP-2003**

### **PLANNING/DEVELOPMENT**

1. **DEVELOPMENT REVIEW BOARD.** The City Council directs the Development Review Board's attention to:
  - a. Architectural Design
  - b. Perimeter Wall Design,
  - c. Landscape Plan
  - d. The type, height, design, and intensity of proposed lighting on the site, to ensure that it is compatible with the adjacent use.
2. **NATIVE PLANT PRESERVATION.** The owner shall secure a native plant permit as defined in the Scottsdale Revised Code for each parcel. City staff will work with the owner to designate the extent of the survey required within large areas of proposed undisturbed open space. Where excess plant material is anticipated, those plants shall be offered to the public at no cost to the owner in accordance with state law and permit procedure or may be offered for sale.

### **ENGINEERING**

1. **ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS.** All construction activities that disturb one or more acres shall obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Construction Activities. [NOI forms are available in the City of Scottsdale One Stop Shop, 7447 East Indian School Road, Suite 100. Contact Region 9 of the U.S. Environmental Protection Agency at 415-744-1500, and the Arizona Department of Environmental Quality at 602-207-4574 or at web site <http://www.epa.gov/region9>.]

The developer shall:

- a. Submit a completed Notice of Intent (NOI) to the EPA.
  - b. Submit a completed Storm Water Pollution Prevention Plan (SWPPP) with the improvement plan submittal to the Development Quality/Compliance Division.
2. **NOTICE OF INTENT (NOI).** With the improvement plan submittal to the Project Quality/Compliance Division, the developer shall submit a copy of the NOI.
3. **SECTION 404 PERMITS.** With the improvement plan submittal to the Project Quality/Compliance Division, the developer' engineer must certify that it complies with, or is exempt from, Section 404 of the Clean Water Act of the United States. [Section 404 regulates the discharge of dredged or fill material into a wetland, lake, (including dry lakes), river, stream (including intermittent streams, ephemeral washes, and arroyos), or other waters of the United States.]
4. **DUST CONTROL PERMITS.** Before commencing grading on sites 1/10 acre or larger, the developer shall have obtained a Dust Control Permit (earth moving equipment permit) from Maricopa County Division of Air Pollution Control. Call the county 602-507-6727 for fees and application information.
5. **UTILITY CONFLICT COORDINATION.** With the improvement plan submittal to the Project Quality/Compliance Division, the developer shall submit a signed No Conflict form (not required for city owned utilities) from every affected utility company.

6. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY REQUIREMENTS (ADEQ). The developer shall be responsible for conformance with ADEQ regulations and requirements for submittals, approvals, and notifications. The developer shall demonstrate compliance with Engineering Bulletin #10 Guidelines for the Construction of Water Systems, and Engineering Bulletin #11 Minimum Requirements for Design, Submission of Plans, and Specifications of Sewerage Works, published by the ADEQ. In addition:
- a. Before approval of final improvement plans by the Project Quality/Compliance Division, the developer shall submit a cover sheet for the final improvement plans with a completed signature and date of approval from the Maricopa County Environmental Services Department (MCESD).
  - b. Before issuance of encroachment permits by city staff, the developer shall provide evidence to city staff that a Certificate of Approval to Construct Water and/or Wastewater Systems has been submitted to the MCESD. This evidence shall be on a document developed and date stamped by the MCESD staff.
  - c. Before commencing construction, the developer shall submit evidence to city staff that Notification of Starting Construction has been submitted to the MCESD. This evidence shall be on a document developed and date stamped by the MCESD staff.
  - d. Before acceptance of improvements by the city Inspection Services Division, the developer shall submit a Certificate of Approval of Construction signed by the MCESD and a copy of the As-Built drawings.
  - e. Before issuance of Letters of Acceptance by the city Inspection Services Division, the developer shall:
    - (1). Provide to the MCESD, As-Built drawings for the water and/or sanitary sewer lines and all related facilities, subject to approval by the MCESD staff, and to city staff, a copy of the approved As-Built drawings and/or a Certification of As-Built, as issued by the MCESD.
    - (2). Provide to the MCESD a copy of the Engineers Certificate of Completion with all test results, analysis results, and calculations, as indicated on the form.
    - (3). Provide to the MCESD a copy of the Request for Certificate of Approval of Construction of water and/or sanitary sewer lines with all appropriate quantities.
    - (4). Provide the city Inspection Services Division a copy of the Certificate of Approval of Construction, as issued by the MCESD.

REGULATORY COMPLIANCE IMPROVEMENTS PROJECT  
CAP WATER TREATMENT PLANT  
CITY OF SCOTTSDALE, AZ  
SEPTEMBER 22, 2003

NEIGHBORHOOD INVOLVEMENT FOR THE MUNICIPAL USE PERMIT  
APPLICATION

The Neighborhood Involvement Requirements stated within the Neighborhood Involvement Packet as part the Municipal Use Permit Application include the following two items:

1. You are required to provide information about your project to property owners and HOA's within 750 feet of the property by 1<sup>st</sup> class letter, postcard, or phone call.
2. You are required to hold at least one Open House Meeting.
3. You are required to submit a Neighborhood Involvement Report to your Project Coordinator with your application.

Due to the fact that there are no property owners and HOA's within 750 feet of the property, Malcolm Pirnie, Inc. is not required to contact anyone on behalf of the owner, City of Scottsdale, concerning the proposed project, or to hold an Open House Meeting. There has been a decision, however, to notify the surrounding property owners, regardless of distance from the CAP Water Treatment Plant, about the future onsite construction. This notification will be handled internally within the City of Scottsdale.

[FLYER → WILL SEND OUT AND GIVE US A COPY, AND ALL ADDRESSES]

\* APPLICANT SENT OUT 179 FLYERS TO ALL  
PROPERTY OWNERS WITHIN 1,500 FT. OF SITE.

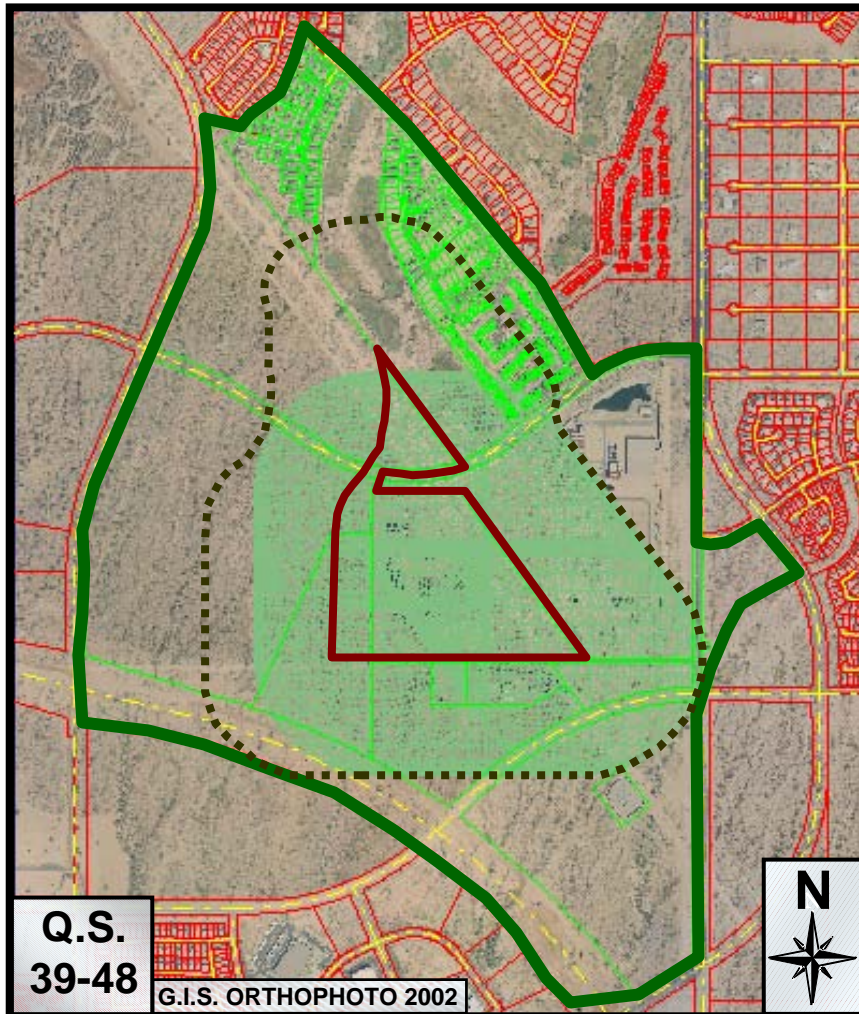
\* APPLICANT HAD ONE OPEN HOUSE ON OCT. 15, 2003.  
ONE CITIZEN SHOWED UP AND INQUIRED ABOUT  
THE PROJECT.

ATTACHMENT #7

27-UP-2003  
11/4/2003



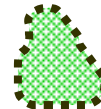
# City Notifications – Mailing List Selection Map



## Map Legend:



Site Boundary



Properties within 300-feet



Extended Selection  
(Additional properties notified)

## Additional Notifications:

- Casitas at Ironwood Village
- Ironwood Village Association
- Pima Acres HOA
- Scottsdale Stonebrook II HOA
- The Retreat @ Grayhawk HOA
- Interested Parties Listing

Water Treatment Plant

**27-UP-2003**

# County Parcels

Additional  
land for  
project

6.9 ACERS

25 ACRES

Existing land  
used for  
project

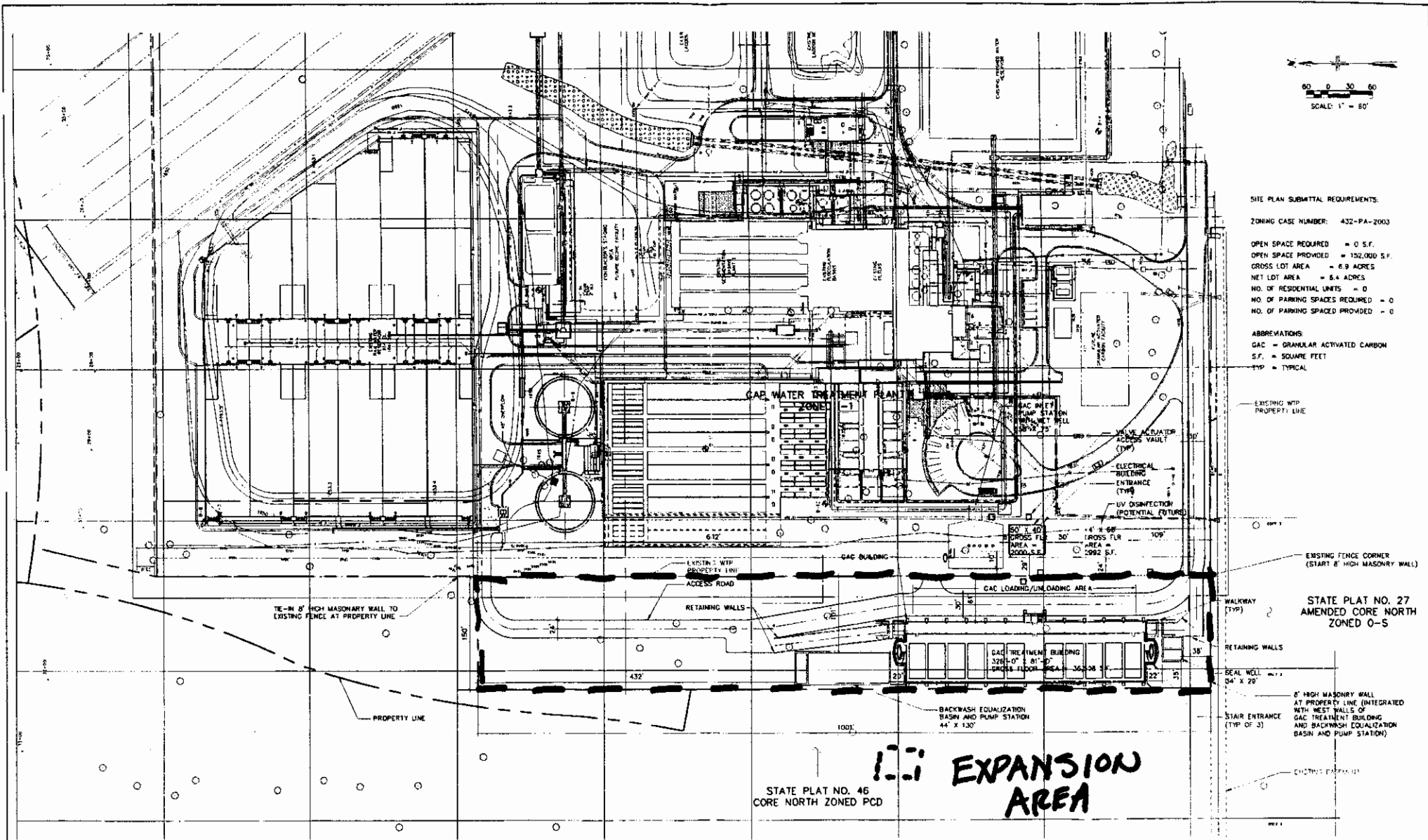
ATTACHMENT #9

### **CASE HISTORY**

- 122-ZN-84** – Rezone a 41.6-acre CAP water treatment plant site from R1-35 to I-1.
- 50-DR-85** - Development Review case for the CAP water treatment plant.
- 50-DR-85#2** - Development Review case for an expansion to the CAP water treatment plant and for buffering techniques.
- 50-DR-85#3** - Development Review case for another expansion to the CAP water treatment plant.
- 40-SA-2000** – Approval of an underground pump in the CAP water treatment plant
- 46-ZN-1990** – Rezoning of Core North (2360 acres) from a variety of districts to PCD.
- 46-ZN-1990#2** – Amend zoning, development plan, development standards, and stipulations of the original case.



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SITE PLAN SUBMITTAL REQUIREMENTS:

ZONING CASE NUMBER: 432-PA-2003

OPEN SPACE REQUIRED = 0 S.F.  
OPEN SPACE PROVIDED = 152,000 S.F.  
GROSS LOT AREA = 6.9 ACRES  
NET LOT AREA = 5.4 ACRES  
NO. OF RESIDENTIAL UNITS = 0  
NO. OF PARKING SPACES REQUIRED = 0  
NO. OF PARKING SPACES PROVIDED = 0

ABBREVIATIONS:

GAC = GRANULAR ACTIVATED CARBON  
S.F. = SQUARE FEET  
TYP = TYPICAL

EXISTING WTP  
PROPERTY LINE

EXISTING FENCE CORNER  
(START 8' HIGH MASONRY WALL)

STATE PLAT NO. 27  
AMENDED CORE NORTH  
ZONED O-S

RETAINING WALLS

BEAL WELL  
34" X 20"

8' HIGH MASONRY WALL  
AT PROPERTY LINE (INTEGRATED  
WITH WEST WALLS OF  
GAC TREATMENT BUILDING  
AND BACKWASH EQUALIZATION  
BASIN AND PUMP STATION)

EXISTING EXHAUST

PRELIMINARY - NOT FOR CONSTRUCTION

MALCOLM  
PIRNIE

CITY OF SCOTTSDALE, ARIZONA

REGULATORY COMPLIANCE IMPROVEMENTS PROJECT  
CAP WATER TREATMENT PLANT

SITE PLAN

SCALE: 1" = 60'

MALCOLM PIRNIE, INC.

27-UP-2003  
11/4/2003

ATTACHMENT #11